

Remarks

The specification and claims have been amended to better conform to conventional U.S. practices. For example, the amendment to the specification includes proposed insertions of the recommended headings into the specification. Antecedent issues were clarified in main Claim 1, and more conventional transitional language was substituted in the dependent claims.

§ 112 second paragraph rejections

All of the claims 1 – 9 stand rejected because an “and/or” term in Claim 1 is said to render the main claim indefinite. The relevant passage has now been amended to read as follows:

-- said metallic conductor being configured as one of a carrier for securing said shaped seal and a flange or frame to which said shaped seal is securable --

In the reworded section “and” replaces the offending “and/or” term to complete the required clarification.

§ 102 rejections

Claims 1 – 3 and 5 – 9 stand rejected under §102(e) as being anticipated by U.S. Patent 6,389,752 to Rousseau. The Rousseau patent was filed on June 21, 1999, which is before the filing date of the International Application on which the subject national stage application is based but is after the filing date of the German application for which priority is claimed in the subject national stage application. The priority German application DE 199 13 105.8 was filed on March 23, 1999.

A translation of the priority German application DE 199 13 105.8 is attached, along with a certification from the translator that the translation is accurate. The disclosure of the German priority application DE 199 13 105.8 is substantially identical to the disclosure of the subject application as filed under the PCT. The Examiner will note that the translation of the German priority

application DE 199 13 105.8 and the translation of the subject national stage application match paragraph for paragraph throughout the corresponding Summary and Detailed Description sections of the applications. The drawings are also the same.

Thus, the same clear support for the current claims is found in both documents, namely the priority German application DE 199 13 105.8 and the subject national stage application; and this entitles applicants to the benefit of the filing date of the priority German application for these claims. Accordingly, the Rousseau patent is not citable against the claims prior art.

§ 103 claim rejections

U.S. Patent 5, 296,658 to Kramer et al. is modified in view of U.S. Patent 6,079,771 to Brandner et al. for rejecting claims 1 – 3 and 5 – 9 under §103(a). Although the Examiner says that the claims are anticipated by this combination of references, we treat the rejection as a §103(a) rejection as otherwise stated.

The claimed invention deals with the problem of volume resistivity and provides for incorporating a metallic conductor (which also has a structural purpose in the device) for reducing the volume resistivity of one of two conductive portions whose contact triggers a switching action. Kramer et al. disclose a safety edge switch for detecting obstructions encountered by a moving object such as a window, but show no appreciation of the volume resistivity problem dealt with by the subject invention and do not propose any solutions or even any structures that might inadvertently be appropriate for dealing with the problem. The Examiner acknowledges that Kramer et al. fail to disclose the claimed metallic conductor, which is now set forth in the claims as being configured as one of a carrier for securing the shaped seal and a flange or frame to which the shaped seal is securable.

The Examiner cites Brandner et al. as disclosing a sensor 8 (treated as one of the claimed conductive portions), connected to an inner cover sheet 6

(treated as the claimed metallic conductor). The Examiner takes notice that the inner cover sheet is metallic because of its cross sectioning. In place of the claimed switching action involving two electrically conductive portions spaced apart from each other, Brandner et al. employ a sensor for detecting the pinching of a body part or article. The problem of volume resistivity in the conductive portions of a switch is not apparent in Brandner et al.'s choice of a sensor.

Brandner et al. say that the sensor element 8 is preferably fixed on a wall 6A or 6B of the inside cover sheet 6 by cementing and that the cementing can be done before peripheral foaming or injection, which otherwise holds the sensor element 8 in place. There is no suggestion that the connection between the sensor and the cover sheet should be conductive regardless of whether the cover sheet is conductive or not. Moreover, there is no reason apparent from Brandner et al. for making a conductive connection in this regard. The sensor element 8 as a whole is not subject to the same problem of volume resistivity as dealt with for the conductive portions of the claimed invention.

The combination of Kramer et al. and Brandner et al. fails in several ways to reach the claimed invention. First, no motivation is found in either reference for making the suggested combination. Neither considers the problem of volume resistivity. Brandner et al. employ a sensor as an alternative to the switch disclosed in Kramer et al. Brandner et al.'s sensor does not replace just one or the other of Brandner et al.'s switch contacts. Instead, Brandner et al.'s sensor replaces both contacts as well as the structure supporting relative movement between the two contacts. Thus, the addition of Brandner et al.'s sensor to Kramer et al.'s edge switch as would be intended by Brandner et al. would change the entire character of the device. Kramer et al.'s edge switch would no longer be a switch.

There is no suggestion that the Brandner et al.'s sensor would have separate utility as a conductive component (i.e., a conductive contact) of an electrical switch, and surface conductivity is not an inherent attribute of such

sensors. However, even if Brandner et al.'s sensor were substituted for one of the switch contacts of Kramer et al., Brandner et al.'s teaching suggests that the sensor should be mounted by cement to the wall of an inner cover sheet. There is no suggestion that the cement connection should be a conductive connection regardless of whether either or both of the sensor and cover sheet are conductive. Of course, the use of Brandner et al.'s sensor as a simple switch contact is not in keeping with the Brandner et al.'s intention for the sensor as a substitute for a complete switch. Such sensors are too expensive to be practically considered for use as a single contact or pole of a switch, and such sensors are not necessarily conductive or have exterior surfaces that are conductive in such a way that they might be used as one of two contacts of a switch.

Thus, to reach the claimed invention by way of the suggested combination of Kramer et al. and Brandner et al., one would have to proceed without having the objectives of the claimed invention in mind because neither reference recognized volume resistivity as a problem to be solved. Further, one would be required to make a substitution of a sensor for one of two conductive contacts of a switch, when the sensor itself is intended as a substitute for the entire switch. Yet further, one would be required to assume that the sensor would exhibit surface electrical conductivity appropriate for use as a conductive contact even though the cited reference offers no such description of the sensor nor is such a property necessary or expected for such sensors. Yet further, one would be required to assume that the suggested mounting of the sensor is conductive even though the Brandner et al. offer no such description nor is such a property necessary or expected for such sensors. Even if a motivation could be found for combining the references, the result of the combination would be a much more costly device with no reasonable expectation that it should work as required.

The Kramer et al. patent is combined with U.S. Patent 4,271,634 to Andrzejewski for rejecting claim 4. Everything missing from the combination of

Kramer et al. and Brandner et al. is missing from the combination of Kramer et al. and Andrzejewski. Of course, Brandner et al.'s sensor is also missing.

Neither Kramer et al. nor Andrzejewski deal with the problem of volume resistivity associated with the switching action between two electrically conductive portions of an anti-trap guard device. Andrzejewski contributes a metal carrier for a channel-shaped seal. However, nothing in Andrzejewski suggests that the disclosed metal carrier should electrically contact one of two electrically conductive portions of an anti-trap guard for reducing volume resistivity. Andrzejewski metal carrier might be used to replace the U-shaped metal insert 14 of Kramer et al., but this substitution would not move Kramer et al.'s edge switch any closer to the claimed invention.

Regarding dependent Claim 2, neither reference suggests that the claimed carrier should contact the claimed electrically conductive portion. No such contact is apparent in Kramer et al, and Brandner et al. does not disclose an electrically conductive portion beyond the identified sensor that is cemented to the wall of an inside cover sheet 6. Neither Kramer et al. nor Brandner et al. discloses or otherwise suggest an electrically conductive portion that surrounds any part of a carrier as required by dependent Claim 3.

Dependent Claim 5 requires the electrically conductive portion to extend up to an outer side of the shaped seal. The Examiner refers to Kramer et al.'s U-shaped metal insert 14 as the claimed electrically conductive portion. However, Kramer et al.' metal insert 14 does not function as an electrically conductive portion whose contact with another electrically conductive portion triggers a switching action. Kramer et al.'s switch contacts are conductive structures 26 and 28. The metal insert 14 does not have an electrical function.

According to dependent Claim 6, the extending electrically conductive portion is required to form lips or tabs for securing the shaped seal to the flange or frame. Kramer et al.'s electrically conductive portions are not so shaped to perform a similar function.

Dependent Claim 4 is rejected over the Rousseau patent in view of Andrzejewski. The Rousseau patent is not a prior art, and the Andrzejewski patent does not disclose any type of anti-trap guard.

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In view of the above amendment and remarks, reconsideration and allowance of all pending claims 1 – 9 are respectfully requested. If the Examiner has any questions concerning this amendment or the application, the Examiner is invited to contact Applicant's representative as indicated below.

Respectfully submitted,



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Dated: December 18, 2003